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Xerox Docket No. D/A0606

**PATENT APPLICATION**

**RESPONSE AFTER FINAL REJECTION  
EXPEDITED PROCEDURE  
TECHNOLOGY CENTER ART UNIT 2178**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Ercan E. KURUOGLU et al.

Group Art Unit: 2178

Application No.: 09/982,024

Examiner: C. Paula

Filed: October 19, 2001

Docket No.: 110915

For: METHOD AND APPARATUS FOR GENERATING A SUMMARY FROM A  
DOCUMENT IMAGE

**REQUEST FOR RECONSIDERATION AFTER FINAL REJECTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the March 18, 2005, Office Action and in view of the April 19, 2005,  
personal interview, reconsideration of the application is respectfully requested.

Claims 1-14 are pending in this application.

Applicants appreciate the courtesies shown to Applicants' representative by Examiner  
Paula in the April 19 personal interview. Applicants' separate record of the substance of the  
interview is incorporated into the following remarks.

**I. Information Disclosure Statement**

An Information Disclosure Statement (IDS) with Form PTO-1449 was filed in the  
above-captioned patent application on January 2, 2002. The Examiner initialed and returned  
to the undersigned a copy of the Form PTO-1449 with the August 25, 2004 and March 18,

2005 Office Actions. However, the Examiner drew a line through the listed reference U.S. Patent Application No. 09/738,992 (now U.S. Publication No. 2002-0078088 A1) indicating that the reference has not been considered. Applicants submit herewith a copy of corresponding U.S. Publication No. 2002-0078088 A1 for consideration, as requested by the Examiner. The Examiner is requested to initial and return to the undersigned a copy of the January 2, 2002 Form PTO-1449 filed to acknowledge the fact that the Examiner has considered U.S. Patent Application No. 09/738,992 (now U.S. Publication No. 2002-0078088 A1). For the convenience of the Examiner, a copy of that form is attached.

**II. Rejections Under 35 U.S.C. §102(b)**

The Office Action rejects claims 1-5 and 8-12 under 35 U.S.C. §102(b) over U.S. Patent No. 5,659,639 to Mahoney et al. ("Mahoney"). Applicants respectfully traverse the rejection.

Mahoney does not disclose, teach or suggest an apparatus or method for generating a summary of a document including "extracting portions of the document, the extracted portions being identified by the detected annotations, and generating a summary including only the extracted portions of the document," as recited in independent claims 1 and 8.

The Office Action asserts that Mahoney discloses receiving a document with an input image set having editing marks via a scanner, detecting or distinguishing the editing marks from graphical features in the document, and outputting a version of the scanned document in which the editing operation has been performed. See Figs. 1 and 4. Specifically, the Office Action asserts that outputting a version of the scanned document in which editing operations have been performed corresponds to generating a summary of a document by extracting portions indicated by detected annotations. Applicants respectfully disagree.

During the personal interview, Applicants' representative asserted that Mahoney discloses an apparatus and method including obtaining an input image set having graphical features 12, 14 and editing components 22, 24, 26, 28. See Fig. 1, and col. 11, lines 47-56. Mahoney discloses, in Fig. 4, three specific examples of input image sets. See col. 14, lines 16-17. In one example, the input image set includes an image 108 having a graphical features, e.g., "A" and "B", and editing marks, e.g., the arrows and boxes, that are distinguishable from the graphical features. See Fig. 4, col. 14, lines 46-49. Therefore, the graphical features are the portions of the input image set that are identified by the editing marks.

Mahoney also discloses that the apparatus automatically obtains operation category data 30 indicating a type of the editing components 22, 24, 26, 28. See col. 11, line 57 - col. 12, line 8. Then, the apparatus automatically uses the operation category data 30 to obtain data defining an image of a sheet 32 which is an output image of the input image set in which editing operations have been performed. See col. 12, lines 8-12. Therefore, the output image is a version of the input image set. See col. 2, lines 29-32, col. 8, lines 54-59, and col. 13, lines 2-6.

During the personal interview, the Examiner asserted that after the identified deleted portions are deleted from the document, the remaining portions of the document correspond to extracted portions of original input image. Therefore, the Examiner asserted that "only the extracted portion of the document is presented to the user" as a summary.

However, after the editing marks identify the graphical features to be edited, the identified graphical features are extracted, e.g., deleted and/or moved, according to the operation category data 30 indicating a type of the editing components 22, 24, 26, 28. See col. 11, line 57 - col. 12, line 8. Therefore, the identified graphical features are extracted

portions. The input image is the source document in which the graphical features identified by the editing marks are extracted from. The final output image that remains after the identified graphical features have been removed is a modified version of the input image not extracted information, i.e., information removed for separate consideration or derived or obtained from a source.

Mahoney teaches presenting the input image with the performed editing operations as the final output image. Therefore, the final output image is presented as a modified version of the input image set. See col. 2, lines 29-32, col. 8, lines 54-59, and col. 13, lines 2-6. Mahoney does not teach or suggest generating a separate summary of only the graphical features indicated by the detected editing marks, i.e., the extracted portions. Therefore, Mahoney cannot be reasonably considered to teach or suggest generating a summary of only the extracted portions of the documents that are identified by the detected editing marks, as recited in claims 1 and 8.

In the apparatus and method of claims 1 and 8, portions of an original digital image are identified by detected annotations, the identified portions are extracted, and only the extracted portions identified by detected annotations are used to form a summary. See Fig. 2, and application page 5, lines 4-7 and lines 21-26. Therefore, the summary includes only the extracted regions of interest that are identified by the annotations in the original document image. See application page 4, lines 2-6. Mahoney does not teach or suggest extracting portions identified by the annotations of the original image, or generating a summary including only extracted portions identified by the annotations. For at least these reasons, does not disclose, teach or suggest the apparatus and method of claims 1 and 8, respectively.

Therefore, claims 1 and 8 are patentable over Mahoney. Claims 2-5 and 9-12 variously depend on claims 1 and 8, and thus are also patentable over Mahoney. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**III. Rejections under 35 U.S.C. §103(a)**

The Office Action rejects claims 6-7 and 13-14 under 35 U.S.C. §103(a) over Mahoney in view of U.S. Patent No. 6,751,779 to Kurosawa et al. ("Kurosawa"). Applicants respectfully traverse the rejection.

As discussed above, Mahoney does not teach or suggest an apparatus and method including "extracting portions of the image of the document, the extracted portions being identified by the annotations, and generating a summary including only the extracted portions of the document," as recited in claims 1 and 8. Kurosawa does not remedy the deficiencies of Mahoney.

Kurosawa is directed to an apparatus and method for processing a document image including inputting a document image, as image data, into an image inputting section 11. See Fig. 1, and col. 4, lines 4-7. Kurosawa also teaches an image processing section 13 including an editor used to edit the original inputted image from the image inputting section 11. See col. 4, lines 10-17. As a result, it is possible to apply at least one deletion or correction to a document image after the image has been inputted by a scanner. See col. 1, lines 16-19. Therefore, editing marks are made to the input image after the input image is scanned by a scanner.

Further, Kurosawa teaches an image outputting section 14 arranged to output document images processed and outputted by an image processing section 13. See col. 4, lines 18-22. Although Kurosawa teaches deletions or additions of character images into original documents, Kurosawa does not teach or suggest generating a summary including only